

## AUTOMATIC/MANUAL LONGITUDINAL POSITION TRANSLATOR AND ROTARY DRIVE SYSTEM FOR CATHETERS

### ABSTRACT OF THE DISCLOSURE

An automatic pullback catheter system (2) includes a  
5 disposable catheter assembly (6) mountable to a drive assembly  
(4). The drive assembly includes a body (8) to which a drive  
chassis (14) is mounted for movement along a longitudinal path  
(16) by a motor (20) which rotates a longitudinal drive screw  
(22) selectively coupled to the drive chassis by a threaded  
10 clamp (24). A rotary drive motor (30), mounted to the drive  
chassis, rotates a first combined connector (34). The  
catheter assembly includes a hollow sheath (38) housing a  
rotatable and axially movable cable assembly (44). The sheath  
includes a proximal hub (42) mountable to the body. The cable  
15 assembly includes an elongate imaging cable (46) with a second  
combined connector (36) at its proximal end. The first and  
second combined connectors are blind matable connectors and  
provide for the longitudinal movement coupling, the rotary  
movement coupling and the data/information connection of the  
20 two connectors.